INSTRUCTIONS

-J03052 Rev 9-9-03

Kit Number 76350-04

FLHT 2004 AND LATER RADIO/CD KIT WITH AMP

General

This Radio/CD with amplifier is designed for installation on 2004 and later FLHT/C/CI® and FLTR/I® model motorcycles. This kit will fit 1998-2003 FLHT models with separate purchase of Power Connection Kit (Part Number 70663-04).

NOTE

This kit is designed to power 2 speakers only. It will not work with 4 speaker systems.

This kit requires installing Antenna Kit (Part Number 76306-98, sold separately) available from your Harley-Davidson dealer.

See the Service Parts illustration for kit contents.

⚠WARNING

A Service Manual is required for correct installation of this kit. The rider's safety depends upon correct installation of this kit. Read this Instruction Sheet and the appropriate Service Manual sections before proceeding. If the procedure is not within your capabilities or you do not have the correct tools, have your Harley-Davidson dealer perform the installation. Improper installation of this kit could result in death or serious injury.

NOTE

A Service Manual for your motorcycle is available at your Harley-Davidson Dealer.

Installation

Outer Fairing Removal

1. Follow instructions in applicable Service Manual and remove seat.
2. Follow instructions in applicable Service Manual and remove the Maxi-Fuse.
3. See Figure 1. Remove the outer fairing and windshield:
   a. Remove the TORX® screws (1, 2, 3) from the outer fairing to remove the windshield.
   b. Remove the TORX screws (4, 5, 6, 7) from the inner fairing. Turn the handlebar to access screws 6 and 7.
   c. Tilt the outer fairing toward the front, then squeeze the two external tabs to remove the wire connector from the back of the headlamp assembly.
   d. Lift the fairing and headlamp assembly from the motorcycle.
4. Remove the four screws fastening the sides of the center storage box to the inner-fairing brackets. Save the screws for installation.

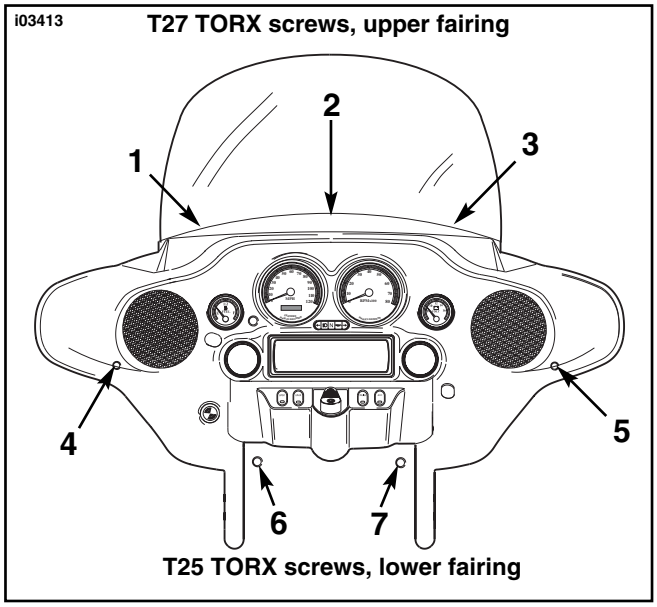


Figure 1. Removing Outer Fairing Fasteners

Install the Radio/CD with Amp

IMPORTANT

Copy the serial number from the label, located on top of the radio chassis, before installing the radio. The serial number must be included on the warranty form.

NOTE

Connector numbers in brackets (for example, [27]) correspond to the connector numbers in the Service Manual wiring diagrams.

1. Hold the radio between the support brackets with the radio nose seal in position over the hole in the fairing.

NOTE

To assist installation, apply soapy water to the nose seal, then gently rock the radio back and forth while inserting the radio into the fairing.

2. Tilt the back of the radio up 45 degrees. Gradually push the radio nose seal into the hole in the inner fairing while lowering the back of the radio. Check that the nose seal is not distorted, compressed, or pinched.
3. Fasten the radio to the inner-fairing brackets using the four screws and washers from Step 4 in Outer Fairing Removal. Torque the screws to 45–60 **in-lbs** (5.0–6.7 Nm).
4. See Figure 4. Plug the radio-antenna cable connector into the back of the radio. Tuck excess cable under the right corner of the radio.
5. See Figure 4. Plug the 23-place connector [27] from the existing (Original) wiring harness into the **BLACK** connector on the back of the radio.

Install Radio/CD Harness Supplied with Kit

1. See Figure 2. Obtain the new radio/CD overlay harness from the kit.

2. From the fairing, route the power and ground wires back to the battery compartment running the wiring parallel to the main harness under the fuel tank.

3. Using cable straps from kit, attach the power and ground wires to the main harness along the route.

NOTE

For 1998 to 2003 Models, skip Steps 5, 6, 7, and 8 and follow installation instructions provided in Instruction Sheet for Power Connection Kit (J03067, Part Number 70663-04).

4. Attach the Ground (Ring Terminal) to the Ground Post near the middle of the frame. NOTE: Remove the nut, install the ring terminal then tighten the nut securely.

5. See Figure 3. Route the Fuse/Relay Socket Terminal toward the Fuse/Relay block on the right side of the motorcycle. Firmly insert the socket terminal into the back of the fuse cavity marked **2-H** on the Fuse/Relay Block.

6. Obtain the fuse from kit and install into **2-H** of the Fuse/Relay Block.

7. Remove and discard the existing Fuse/Relay Block Cover.

8. See Figure 3. Obtain the new (printed) Fuse/Relay block cover and install onto Fuse/Relay block.

9. See Figures 2 and 4. Return to the fairing assembly and connect the overlay power harness 23-place [28] **GREY** Socket to the 23-place **GREY** connector located on the back of the Radio/CD unit.

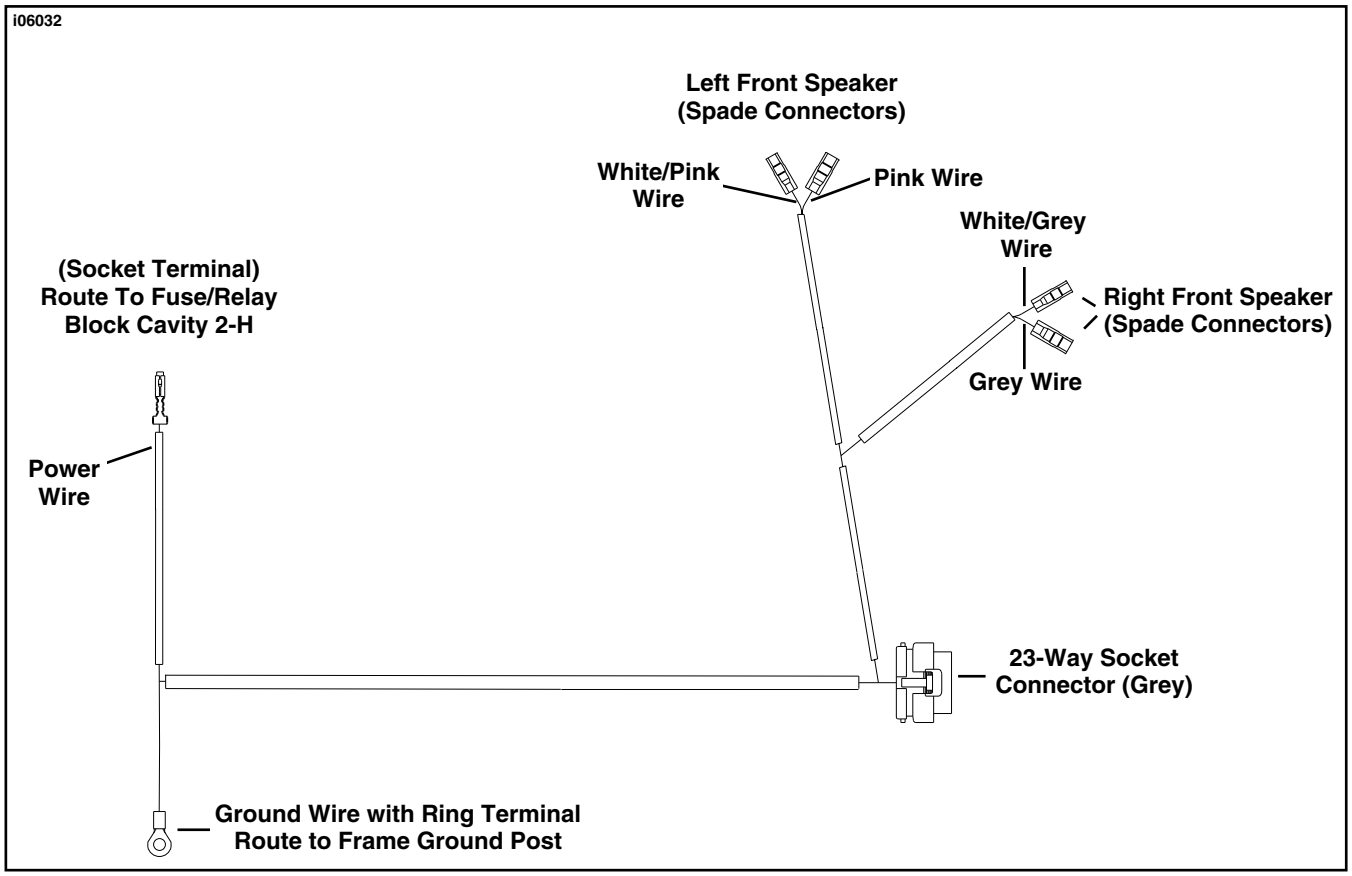


Figure 2. Radio/CD Overlay Power Harness

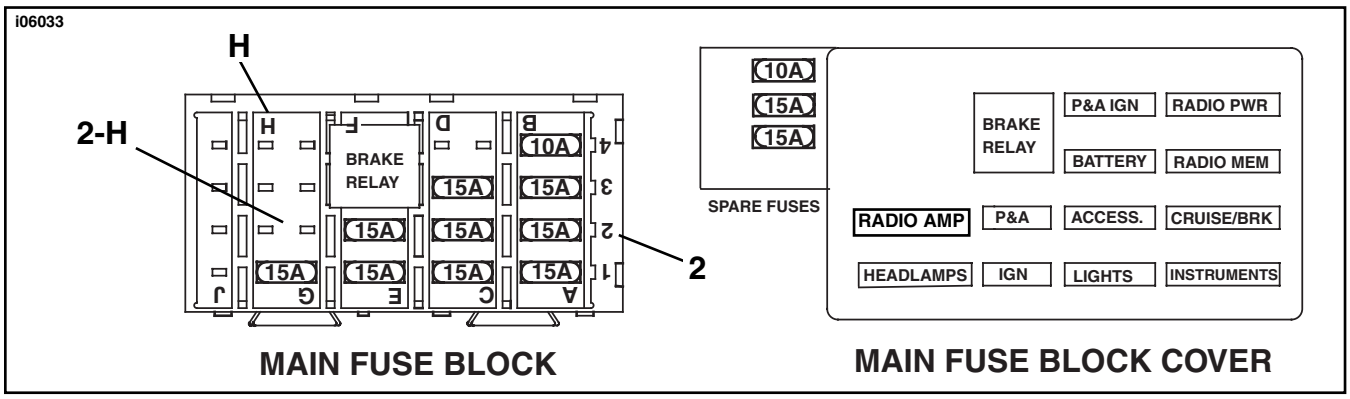


Figure 3. Fuse/Relay Block and Fuse/Relay Block Cover

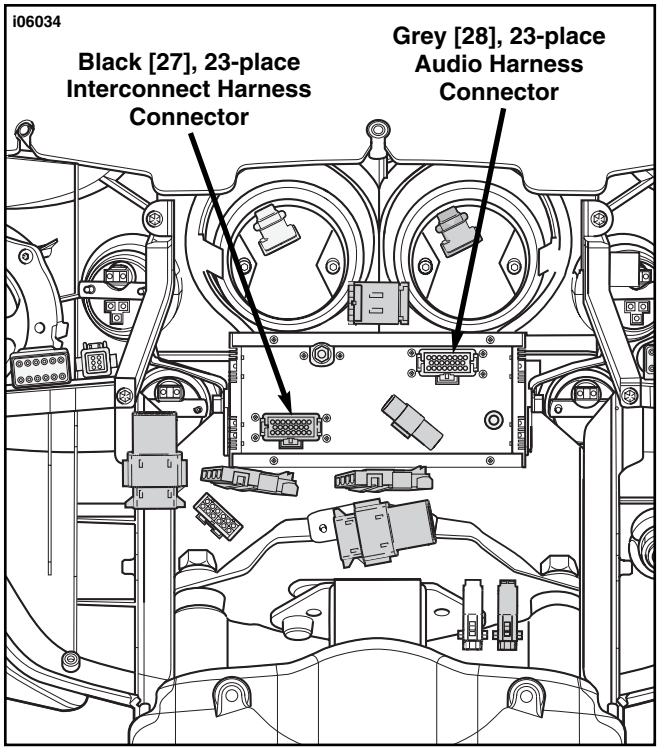


Figure 4. Radio Connections

Install the Speakers

1. Remove the three screws fastening the right-side speaker adapter and grill to the fairing. Discard the screws and adapter.
2. See the Service Parts illustration. Align the holes in the speaker with those in the new adapter. Position the speaker spade contacts at the top of the adapter, the top being the thickest edge. Snap the speaker into the adapter.
3. See Figure 5. Install two 2-inch screws at the top of the speaker to fasten the speaker adapter assembly to the inner fairing. Torque the screws to 22–28 **in-lbs** (2.5–3.2 Nm).
4. Fasten the bottom of the speaker and the fairing support brace using one 1-1/8 inch screw in the speaker's lower-outboard mounting hole. Torque the screw to 35–50 **in-lbs** (4.0–5.7 Nm).

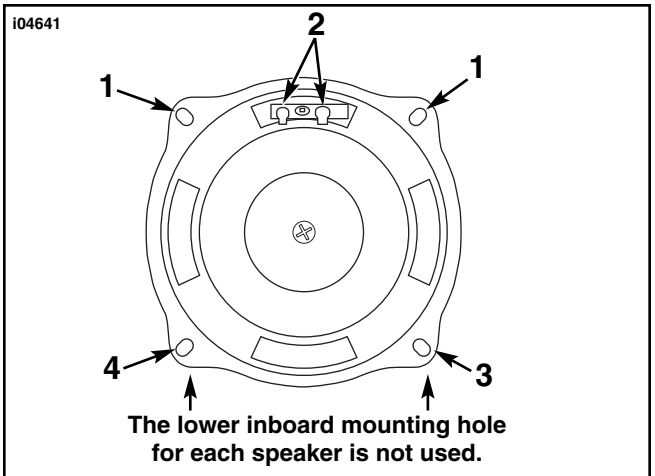
NOTE

Speaker wires from main harness (Original Equipment) will not be used. Using electrical tape, thoroughly tape the ends then tie wrap the wires so they are out of the way.

NOTE

The speaker mounting hole on the lower inboard side of either speaker is not used.

5. Connect the speaker wires (from the supplied harness) to their respective-size spade connectors.
   - **Right-side speaker:** Connect the white/grey and light grey wires from the right side of the fairing to the right-speaker spade connectors.
   - **Left-side speaker:** Connect the white/pink and pink wires from the left side of the fairing to the left-speaker spade connectors.
6. Repeat steps 1 through 5 to install the left speaker.



1. Screw, 2-inch (2)
2. Spade connectors
3. 1-1/8-inch screw (1), left speaker
4. 1-1/8-inch screw (1), right speaker

Figure 5. Speaker Installation

Install the Antenna on Vehicles without a Tour-Pak

Install the Antenna Bracket

1. Remove the right-side saddlebag.
2. See Figure 6. Fasten the antenna bracket (5) to the right fender-support bracket using two 5/16-18 x 5/8-inch screws (9) and lockwashers (8) from the kit.

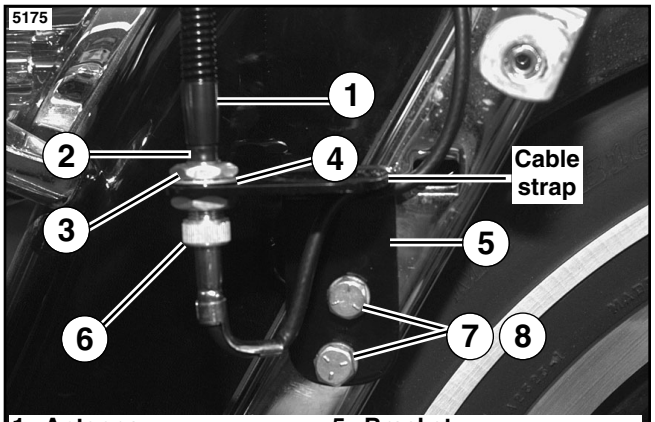
NOTE

If a saddlebag guard or rail is mounted at the lower hole in the support bracket, use the 5/16-18 x 7/8-inch screw (10) to fasten the antenna bracket and saddlebag guard to the support bracket.

3. Tighten the mounting screws to 19 ft-lbs (26 Nm).

Fasten the Antenna to the Antenna Base

1. See Figure 6. Screw the antenna (sold separately) onto the antenna base assembly (2) and tighten the set screw in the antenna to secure it to the base.



1. Antenna
2. Antenna base assy.
3. Nut, 1/2-20
4. Lockwasher, int. tooth
5. Bracket
6. Antenna cable
7. Lockwasher (2)
8. Screws (2)

Figure 6. Antenna Mounting

NOTE

Tighten the set screw holding the antenna mast to the antenna base assembly. The antenna set screws have metric threads (M4-0.7 x 3 mm) and require a 2.0 mm Allen® wrench.

2. Thread one of the large nuts (3) onto the antenna base assembly.

3. Insert the antenna base through the large, internal-tooth lockwasher (4) and hole in the antenna mounting bracket (5).

4. Fasten the other large nut (3) to the antenna base to secure the base to the bracket. With a wrench on the upper nut, tighten the lower nut to 40 **in-lbs** (4.5 Nm).

Connect the Antenna Cable

1. Remove the left sidecover from the vehicle to reveal the antenna cable.

2. Cut the cable strap fastening the antenna cable to the frame.

3. Route the antenna cable to the right side of the vehicle and foward of the luggage-rack mount.

4. See Figure 6. Plug the antenna-cable connector into the antenna base.

5. Tighten the knurled nut on the antenna-cable connector to secure the connector to the antenna base.

6. See Figures 6 and 7. Secure the antenna cable to the vehicle using cable straps at the locations shown.

7. Install additional cable straps on the left side of the front luggage-rack mount and as required to secure the antenna cable.

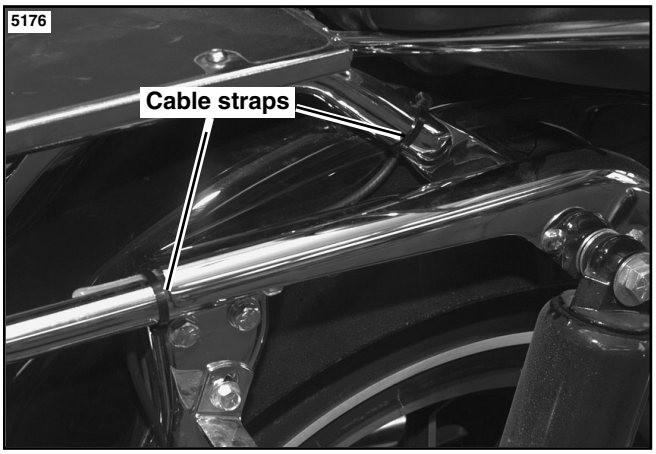


Figure 7. Cable Strap Locations

Install the Antenna on Vehicles Equipped with a Tour-Pak

Preparation

NOTE

Install the antenna where indicated to avoid antenna interference when opening and closing the Tour-Pak lid. Install the antenna base in the upper-left corner of the Tour-Pak outside-rear wall.

NOTE

The measurements in this procedure refer and apply to the lower half of the Tour-Pak only and do not involve or include measurements from or on the Tour-Pak lid.

1. See Figure 8. Measure the width to find the center of the Tour-Pak outside-rear wall.

2. Fasten a 2-inch wide strip of masking tape, vertically from top to bottom, on the outside back center of the Tour-Pak.

3. Repeat Step 1 to mark the Tour-Pak vertical center on the top and bottom of the tape strip.

4. Draw a vertical line on the tape from the top mark to the bottom mark.

5. From the drawn center line, measure 9-1/4 inch to the left.

6. At the 9-1/4-inch measurement, fasten a 2 inch wide strip of masking tape vertically from the Tour-Pak top edge to the horizontal middle of the Tour-Pak wall.

7. Repeat Step 5 to mark a vertical line on the masking tape from Step 6.

8. Across the vertical line on the left tape strip, draw a short horizontal line:

   a. 1-1/4 inch down from the Tour-Pak top edge, and

   b. 1-1/2 inch down from the horizontal line drawn in step 8a (2-3/4 inch from the Tour-Pak top edge)

9. Mark the center of the crossed lines with a center punch and drill 1/8-inch pilot holes in the Tour-Pak wall at the marked points

10. From the outside of the Tour-Pak, drill the pilot holes from Step 9 to a:

    - 17/32-inch hole through the TOP pilot hole
    - 1/4-inch hole through the BOTTOM pilot hole

11. Remove the tape from the Tour-Pak.

NOTE

Some Tour-Paks are equipped with a 5/8-inch hole in the bottom at the front-left side. This hole is for antenna-cable routing. If your Tour-Pak does not have this hole, complete Step 12. Otherwise, continue to the next section.

12. Drill an antenna-cable access hole:

    a. Remove the Tour-Pak liner.

    b. See Figure 1. Locate the pattern of eight 0.31-inch diameter holes in the metal plate on the inside-bottom of the Tour-Pak.

    c. From the front left-hand hole, measure forward 1 inch and left (outboard) 4 inch Mark this location.

    d. Drill a small pilot hole at the marked location.

    e. From the **underside** of the Tour-Pak, drill a 5/8-inch hole from **outside** the Tour-Pak to the inside.

Antenna Installation

1. See the Service Parts Illustration. Place the gasket (12) on the antenna-base assembly (5).

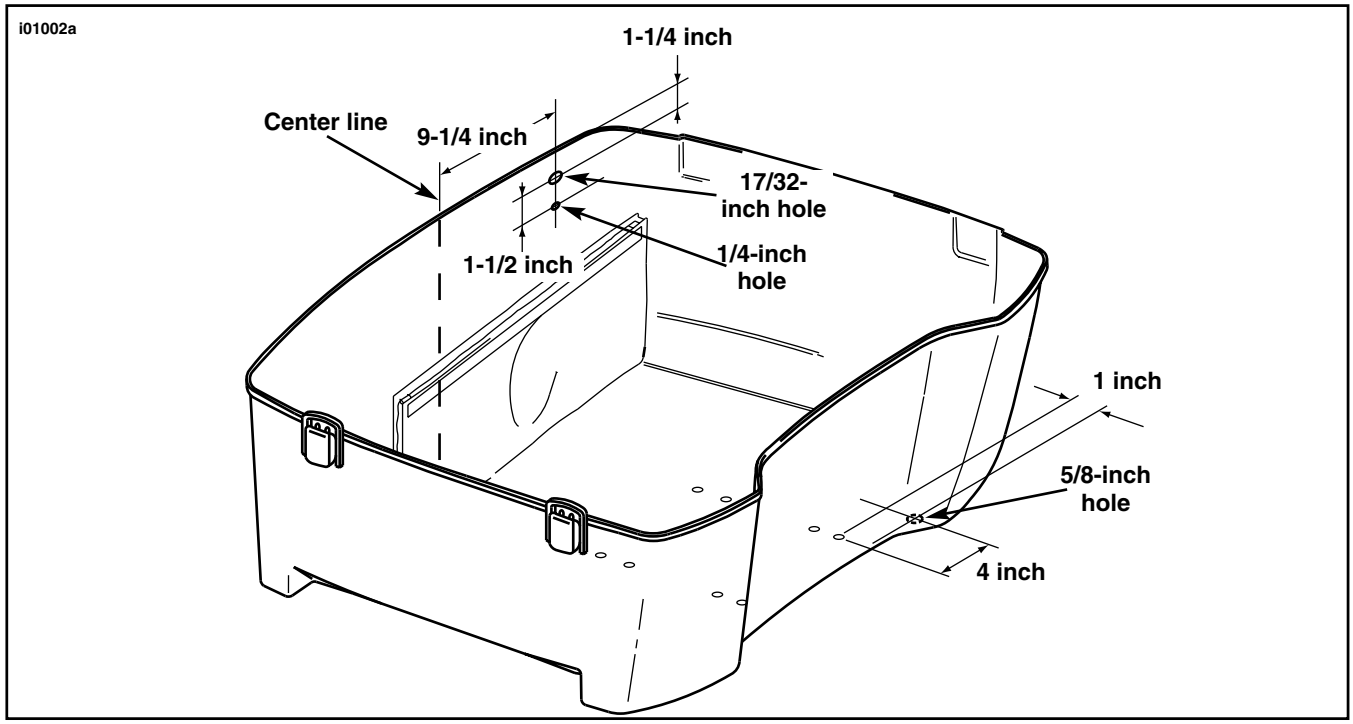


Figure 8. Drilling the Tour-Pak for Radio-Antenna Installation

2. Place the base assembly, with the antenna-mast stud facing upward, into the drilled holes on the back of the Tour-Pak.
3. Place the reinforcement plate (13) on the antenna-base assembly studs inside the Tour-Pak.
4. Place the ground cable (6) on the antenna-base assembly antenna stud.
5. Fasten the antenna-base assembly, reinforcement plate, and ground stud to the Tour-Pak using a lockwasher (4) and nut (3).
6. Attach the other end of the ground cable to a mounting bolt on the inside-bottom of the Tour-Pak.
7. Install the screw (15) and small lockwasher (14) in the bottom hole of the antenna base and from inside the Tour-Pak.
8. Screw the antenna (sold separately) onto the antenna base assembly (2) and tighten the set screw in the antenna to secure it to the base.

NOTE

Tighten the set screw holding the antenna mast to the antenna base assembly. The antenna set screws have metric threads (M4 - 0.7 x 3 mm) and require a 2.0 mm Allen® wrench.

9. Remove the left sidecover from the vehicle to reveal the antenna cable.
10. Cut the cable strap fastening the antenna cable to the frame.
11. Route antenna cable along the Tour-Pak left-side support rack and up through the 5/8 inch hole in the bottom-front left side of the Tour-Pak.
12. Plug the antenna-cable connector into the antenna base. Allow enough cable that, when connected, the cable rests flat on the inside bottom of the Tour-Pak.
13. Tighten the knurled nut on the antenna-cable connector to secure the connector to the antenna base.
14. Use cable straps to secure the antenna cable to the left side of the Tour-Pak support.
15. Install a grommet in the 5/8 inch hole at the bottom-front left side of the Tour-Pak.

Test the Sound System

NOTE

Before installing the outer fairing, test the radio/CD, antenna, and speakers.

1. Turn the ignition to the OFF position.

⚠WARNING

Always connect the positive battery cable first. If the positive cable should contact ground with the negative cable installed, the resulting sparks may cause a battery explosion resulting in death or serious injury.

2. Connect the battery cables to the battery, positive cable first.
3. Refer to the SOUND SYSTEM manual in this kit to test the sound-system operation.
4. Troubleshoot the radio, CD, speaker, and antenna functions as needed. Otherwise, install the Tour-Pak liner and continue to the next section.

1998 to 2003 AVC Setup Procedures

NOTE

This setup is not required for 2004 and later FLHT Models. 1998 to 2003 models require this procedure for the Automatic Volume Control to function.

1. Press and hold any two preset buttons on the front panel while turning the ignition/light switch from OFF to IGNITION or ACCESS.
2. Diagnostic Group 1 (d1), the first of several diagnostic screens will appear in the LCD. Press the local/distant (LO-DX) button to cycle through the diagnostic screens.
3. Stop at the screen: Press 1 for 1998 to 2003 models. Press 2 if your bike is MY2004 or later.
4. Press Preset 1 button.
5. After selecting the correct model year, repeatedly press the LO-DX button until the receiver reverts back to normal radio operation.

Install the Outer Fairing

1. See Figure 1. Place the windshield in position on the inner fairing. Align the slots in the windshield with the threaded inserts.
2. Install the outer fairing:
   a. Place the fairing and headlamp assembly on the motorcycle
   b. Fasten the wire connector to the back of the headlamp assembly.
   c. On the outer fairing, loosely fasten three screws below the windshield.
   d. On the inner fairing, start the two fairing screws just above the wind deflectors on both the left and right side.
   e. Turn the handlebar to the left and start the next fairing screw below the fairing cap.
   f. Turn the handlebar to the right and start the fairing screw on the opposite side.
   g. Alternately tighten the four fairing screws on the inner-fairing side to 45–55 **in-lbs** (5–6.2 Nm).
   h. On the front of the vehicle, tighten the outer fairing screws below the windshield to 10–13 **in-lbs** (1.1 – 1.4 Nm).

⚠WARNING

After installing seat, pull upward on front of seat to be sure it is in locked position. While riding, a loose seat can shift causing loss of control, which could result in death or serious injury. (00070a)

3. Install the seat.

Warranty Information

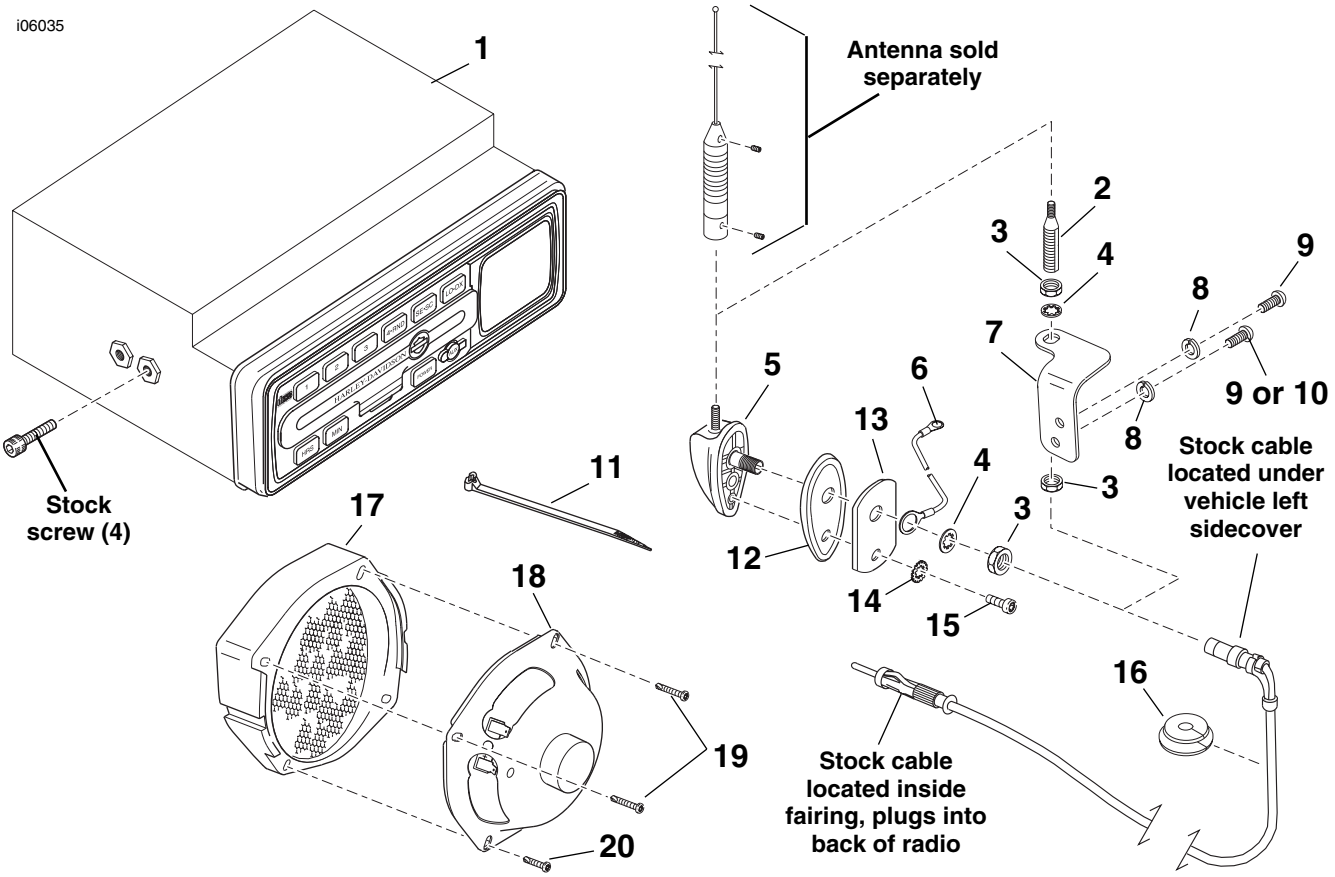
To activate the warranty for this kit:

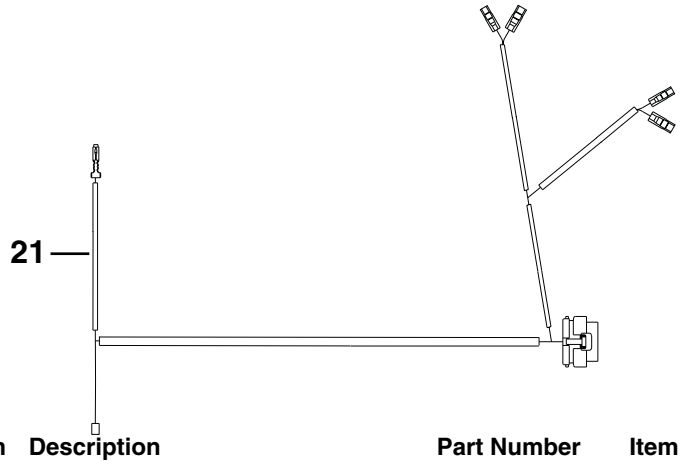
1. Complete the “Premium Sound System Warranty Registration Card.” The radio serial number is located on a label on top of the radio chassis.
2. Send the registration card to Radio Sound Inc.
3. Complete the “Premium Sound System Warranty/ Owner Record.”
4. Keep the “Premium Sound System Warranty/Owner Record” and dated bill of sale for your warranty records.

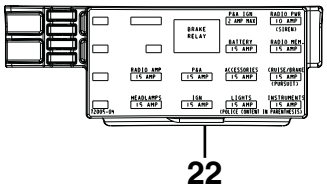
Service Parts

Part Number 76350-04 | Date 9/03

2004 Radio/CD with Amp Kit for FLHT







Item	Description	Part Number
1	Radio/CD with amp	76202-04
2	Assembly, antenna base (Includes items 3 and 4)	76335-87
3	Nut, 1/2-20	76259-86
4	Lockwasher, internal tooth	7129
5	Antenna base assembly (Tour Pak) (Includes items 3 and 4)	76252-86
6	Cable assy, AM/FM antenna ground	70465-86A
7	Bracket, antenna mounting	76153-95
8	Lockwasher, 5/16-inch (2)	7041
9	Hex hd screw, 5/16-18 x 5/8 inch (2)	2882W
10	Hex hd screw, 5/16-18 x 7/8 inch	3991
11	Cable strap (10)	10006
12	Antenna base gasket	76255-86
13	Reinforcement plate	76253-86
14	Lockwasher, #10 internal tooth	7118
15	Screw, #10-32 x 3/4 inch	2576
16	Grommet, antenna cable	11486
17	Adapter, speaker (2)	77047-98
18	Speaker (2)	77178-01
19	Screw, 10-16 x 2 inch (4)	2965
20	Screw, 10-16 x 1-1/4 inch (2)	3639
21	Harness, overlay power	71004-04
22	Cover, fuse/relay block	72005-04
23	Fuse, 15 Amp (not shown)	72330-95
–	Warranty, sound system (not shown)	93745-02
–	Warranty card (not shown)	99471-02
–	Sound System Manual (not shown)	99464-03A